

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.: 8,049,691

Page 1 of 3

APPLICATION NO.: 10/676,312

ISSUE DATE: November 1, 2011

INVENTOR(S): Hao Pan

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 9, Line 22

Change $d_n(t) = f_d(T; Z_n, Z_{n-1}, Z_{n-2}, \dots, Z_{n-p+1}, Z_{n-p}) 0 \leq t < 1$

to read: $-d_n(t) = f_d(T; Z_n, Z_{n-1}, Z_{n-2}, \dots, Z_{n-p+1}, Z_{n-p}) 0 \leq t < 1-$

Col. 9, Line 45

Change: $d_n(t) = z_n = x_n$ for $t' \leq t < 1$

to read: $-d_n(t) = z_n = x_n$ for $t' \leq t < -$

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Kevin L. Russell
Chemoff, Vilhauer, McClung & Stenzel
601 SW Second Ave., Suite 1600
Portland, OR 97204

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 10 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.: 8,049,691

Page 2 of 3

APPLICATION NO.: 10/676,312

ISSUE DATE: November 1, 2011

INVENTOR(S): Hao Pan

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 9, Line 48Change " $z_{n+1} = z_n, d_{n+1}(t) = z_n = x_n$ for $0 \leq t < 1$ "to read: $-z_{n+1} = z_n, d_{n+1}(t) = z_n = x_n$ for $0 \leq t < 1--$;**Col. 9, Line 54**Change: " $d_{n+1}(t) = f_d(t; z_{n+1}, x_n) 0 \leq t < 1$ "to read: $--d_{n+1}(t) = f_d(t; z_{n+1}, x_n) 0 \leq t < 1--$.**Col. 11, Line 39**Change: " $z_n = f_n(x_n, d_{n-1})$ "To read: $--z_n = f_n(x_n, d_{n-1})--$.**MAILING ADDRESS OF SENDER (Please do not use customer number below):**

Kevin L. Russell
Chernoff, Vilhauer, McClung & Stenzel
601 SW Second Ave., Suite 1600
Portland, OR 97204

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.: 8,049,691

Page 3 of 3

APPLICATION NO.: 10/676,312

ISSUE DATE: November 1, 2011

INVENTOR(S): Hao Pan

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 14, Line 53

Change " $d_n(t) = f_d(t; Z_n, Z_{n-1}, Z_{n-2}, \dots, Z_{n-p+1}, Z_{n-p}) 0 \leq t < 1$ "

to read: " $-d_n(t) = f_d(t; Z_n, Z_{n-1}, Z_{n-2}, \dots, Z_{n-p+1}, Z_{n-p}) 0 \leq t < 1$;

Col. 14, Lines 62-63

After the equation, remove the "."

Col. 15, line 61

Change "If z_i " to read -- If z_i --;

Col. 15, Line 63

Change "N." to read -- N^m --.

Col. 16, Line 13

Change " $\text{sum}_n^{\min}(i) = (d_n(i) - x_n)^2$ " to read -- $\text{sum}_n^{\min}(i) = (d_n^{(i)} - x_n)^2$ --.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Kevin L. Russell
Chemoff, Vilhauer, McClung & Stenzel
601 SW Second Ave., Suite 1600
Portland, OR 97204

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 10 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.